Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Joint Application of AT&T Communications of California, Inc. (U 5002 C) and WorldCom, Inc. for the Commission to Reexamine the Recurring Costs and Prices of Unbundled Switching in Its First Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.	Application 01-02-024 (Filed February 21, 2001)
Application of AT&T Communications of California, Inc. (U 5002 C) and WorldCom, Inc. for the Commission to Reexamine the Recurring Costs and Prices of Unbundled Loops in Its First Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.	Application 01-02-035 (Filed February 28, 2001)
Application of The Telephone Connection Local Services, LLC (U 5522 C) for the Commission to Reexamine the Recurring Costs and Prices of the DS-3 Entrance Facility Without Equipment in Its Second Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.	Application 02-02-031 (Filed February 28, 2002)

Application of AT&T Communications of California, Inc. (U 5002 C) and WorldCom, Inc. for the Commission to Reexamine the Recurring Costs and Prices of Unbundled Interoffice Transmission Facilities and Signaling Networks and Call-Related Databases in Its Second Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.	Application 02-02-032 (Filed February 28, 2002)
Application of Pacific Bell Telephone Company (U 1001 C) for the Commission to Reexamine the Costs and Prices of the Expanded Interconnection Service Cross-Connect Network Element in the Second Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.	Application 02-02-034 (Filed February 28, 2002)
Application of XO California, Inc. (U 5553 C) for the Commission to Reexamine the Recurring Costs of DS1 and DS3 Unbundled Network Element Loops in Its Second Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.	Application 02-03-002 (Filed March 1, 2002)

OPINION ESTABLISHING REVISED UNBUNDLED NETWORK ELEMENT RATES FOR PACIFIC BELL TELEPHONE COMPANY DBA SBC CALIFORNIA

. **Table 1**

Adopted UNE Rates

UNE	**Adopted Rate**[1]
Average 2-wire Loop	$13.47
Average DS-1 Loop	$69.26
Average DS-3 Loop[2]	$573.20
2-wire port	$3.08
UNE-Platform[3]	$17.80

[1] These rates include a 21% shared and common cost markup, as adopted in D.02-09-049.

[2] In modeling DS-3 costs, the assumptions adopted in this decision produce costs substantially higher than that requested by SBC-CA. This result is so anomalous, that we believe that it is more reasonable to adopt that amounts requested by SBC-CA. This affects the following UNE's: DS-3 Loop, Unbundled Dedicated Transport using the DS-3 Loop, and the DS-3 Entrance Facility.

[3] UNE-Platform (UNE-P) refers to the combination of a 2-wire loop, 2-wire port, and switching UNEs.

costs we rely solely on HM 5.3.

Some of the key modeling inputs used for the Commission's model runs include a 9.44% cost of capital, asset lives based on those previously adopted by this Commission, and a 51.6% copper distribution fill factor. The Commission's model runs include several inputs and assumptions proposed by SBC-CA, including plant mix, labor rates, Lucent and Nortel switch vendor assumptions, the forward-looking mix between Universal Digital Loop Carrier (UDLC) and Integrated Digital Loop Carrier (IDLC) technologies, and a 12,000-foot crossover point (beyond which fiber replaces copper). Furthermore, today's order adopts a flat-rate structure for the switching UNE wherein all switching costs are incorporated into one flat monthly port price, as proposed by JA.

As set forth in D.02-05-042 and D.02-09-052, SBC-CA must adjust, or "true-up" the interim rates it charged for its UNEs to the new rates adopted in this order. In other words, SBC-CA must calculate whether the previous interim rates were higher or lower than these newly adopted rates, and whether it has over or under-collected the appropriate revenues for any UNEs it sold at interim rates. This order sets a process for true-up payments.

- Corrected asset lives to ensure correct data used in all columns and to use proposed lives of SBC-CA. (Section VI.A)
- Corrected copper distribution and feeder fill factors to ensure the adopted fill factor is used for both material and installation costs (Section VI.E.1-2)
- Modified fill factor for copper distribution to 51.6%, copper feeder to 76%, DLC common equipment to 47.4% and DLC plug-in equipment to 53.1% (Sections VI.E.1,2,4 and 5)
- Corrected average switch size in SICAT to use SBC average for Nortel switches (Section V.D.2, Other Switching and Port Model Changes.)
- Modified NID inputs to use a 2 pair NID, one hour NID installation time, and adjusted residential premise termination fill factor to 53.4% (Section VI.E.7)
- Modified cost of capital to 9.44% based on an 11.78% cost of equity and a 6.34% debt rate, and a capital structure of 57% equity and 43% debt. (Section VI.B)
- Modified expense levels and cost factors related to non-regulated expenses, affiliate expenses, TBO expenses, and land and building factors (Section V.A.4.c)
- Adjusted fill factors in SPICE for SONET and common equipment fill to 85%, and fiber fill 54% (Section V.A.3)
- Modified split of new and growth switching lines (Section VI.J.2)
- Adjusted port cost calculation to correct labor costs and concentration ratio, as suggested by SBC-CA (Section V.D.2, Other Switching and Port Model Changes)
- Modified IDLC / UDLC inputs to 95% UDLC and 5% IDLC (Section VI.C.)

The final corrections and other modeling changes we made to HM 5.3 in response to comments were:

- Modified fill rates for DLC common equipment, and DLC plug-in equipment to match SBC-CA proposals. (Section VI.E.1,2, 4 and 5)
- Removed FCC cable prices and used HM 5.3 default values instead (Section V.D.2, Cable Prices)
- Modified plant mix inputs to match SBC-CA models (Section VI.G)
- Adjusted switching investment per line calculation (Section V.D.2, Switch Vendors)
- Corrected Verizon best in class expenses (Section V.B.6)
- Corrected BRI and trunk port factors (Section V.D.2, Other Switching and Port Model Changes)
- Modified cost of capital to 9.44% (Section VI.B)
- Adjusted DS-1 and DS-3 loop costs to account for missing equipment (Section V.D.2, DS-1 and DS-3 Loops)
- Calculated deaveraged rates for 4-wire, coin, PBX and ISDN loops (Section V.D.2, Deaveraged Rates)
- Modified NID installation time to one hour (Section VI.E.7)
- Removed additional splice crew to return to original splice crew proposals (Section VI.H)
- Modified split of new and growth switching lines (Section VI.J.2)
- Modified interoffice fiber fill factor to 54% to match run of SPICE (Section V.D.2, Interoffice Rates)
- Modified PBX loop option to include investment for PBX line card (Section V.D.2, PBX loops)
- Adjusted asset lives to match SBC-CA proposal (Section VI.A)

2. Description of HM 5.3 and SBC-CA Model Runs

Our decision to use HM 5.3 to set permanent UNE rates aside from the local loops for SBC-CA is based on runs of the HM 5.3 and SBC-CA models where we have set as many inputs as possible at the same levels. The reasoning behind our chosen input levels is described at length in the Modeling Inputs Section VI below. Here, we will briefly summarize which inputs were used for the two model runs that ultimately led to our decision to rely on HM 5.3 for ratesetting purposes. The inputs that we varied for our runs are the following:

Cost of Capital: We modified both models to use an input assumption of a 9.44% cost of capital. Also, we modified the tax rate in HM 5.3 to 40.75% to match the SBC-CA models.

Asset Lives: We used the asset lives proposed by SBC-CA in both the SBC-CA models and in HM 5.3.

IDLC / UDLC: We adjusted both models to assume a configuration of 5% IDLC, and 95% UDLC.

Structure Sharing: In the HM 5.3 model, we used structure sharing levels from the FCC Inputs Order, and we assumed 55% sharing of the distribution and feeder network. In the SBC-CA models, we were not able to modify SBC-CA's proposed structure sharing percentages because we could not determine the percentages assumed by SBC-CA.

equity by averaging it with book value. She explains that the results of her approach comport with SBC-CA's own internal target capital structure used in its capital budgeting process. (JA/Murray 3/12/03, p. 68.)

Z-Tel proposes use of SBC-CA's target capital structure, which gives a greater weight to debt levels and includes short-term debt. (Z-Tel/Ford, 2/7/03, p. 21.) Ford cites two sources in support of the use of target capital structure over the firm's current capital structure for valuation purposes. (*Id.*, p. 29.)

We will not adopt the 84% equity and 16% debt capital structure proposed by SBC-CA because we do not find a capital structure to be forward-looking if it is based on market values from 1998.

We will adopt the approach advocated by Joint Applicants' witness Murray of averaging a market value and a book value capital structure for the proxy group. First, we find that using a capital structure based entirely on market value leads to too much volatility in the capital structure, especially given current financial markets. We will mitigate the volatility of a capital structure based purely on market values by using Murray's approach. We agree with Murray that using a 50/50 approach allows us to use information from the capital structure of the subsidiary SBC-CA, which may differ from the capital structure of its parent company, SBC. (JA/Murray 2/7/03, p. 74.)

Second, Murray and Ford provide a rational argument that a forward-looking capital structure is based on a firm's target capital structure, and the best predictor of target capital structure for a firm uses both market and book information when weighing the costs of debt and equity. (*Id.*, p. 74.) We have verified that Murray's results comport very closely with SBC-CA's proprietary and internal capital structure goals, and we think this is a good secondary basis for using these results as opposed to a capital structure based purely on the market value of the parent company. (JA/Murray, 2/7/03, p. 74, n. 117, citing SBC-CA's response to Data Request No. 559.)

We do not agree with Murray that we should use any short-term debt in the capital structure. In our forward-looking analysis of a hypothetical competitive network, we will assume that all debt is long term consistent with our assumptions regarding asset lives.

In comments on the proposed decision, SBC-CA contends the Commission made a mathematical error in adding short-term debt to long-term debt to arrive at a debt ratio of 43%. We disagree. Our analysis is based on a target capital structure and assumes a total debt ratio of 43%, then assumes that all debt will be incurred at the long-term rate. Rather than a math error, the Commission has chosen a debt / equity ratio that SBC-CA does not agree with.

f) Summary of Weighted Average Cost of Capital

The results of our analysis are summarized in the table below. In short, we derive the capital structure for our analysis based on Murray's proposed 50 / 50 weighting of book and market values for her proxy group of firms, although we exclude Murray's use of short-term debt and will consider all debt as long-term. The 11.78% cost of equity that we use is based on our revisions to the parties' CAPM analysis. We give no weight to the parties' DCF analyses. The 6.34% cost of debt that we use is based on an update to SBC-CA's 30-year debt rate. Altogether, these inputs result in a weighted average cost of capital for SBC-CA of 9.44%.

Table 6
Weighted Average Cost of Capital

Component	Percent of Total	Cost	Weighted Cost
Equity	57.00%	11.78%	6.71%
Debt	43.00%	6.34%	2.73%
	100%		9.44%

- The Commission should use only HM 5.3 to set UNE rates
- The Commission should use only the SBC-CA models to set rates
- Corrections to the SBC-CA models were ignored
- The true-up of interim rates to permanent rates is too large and causes competitive harm
- The new rates create a price squeeze

We address these key comment issues briefly below. The revised proposed decision addressing these comments was mailed to the parties to allow them an additional opportunity to comment, based on the substantial changes from the original proposed decision.

Opening comments were filed on September 16, 2004, and reply comments were filed on September 21, 2004. We have also considered the opening and reply comments on Commissioner Kennedy's alternate because these alternate pages were based on that document. Most of the comments were re-arguments that have already been discussed. However, on three issues, we have made changes based upon comments.

The first change we make is to the cost of capital. We still believe that market value should be given more weight than book value. However, a factor that we did not previously give enough weight is the targeted capital structure. As JA notes, a 50 / 50 blend of market and book value is very close to SBC-CA's targeted capital structure. Therefore, we will use the JA's proposal of a 50 / 50

blend of market and book value because it is almost identical to SBC-CA's targeted capital structure; we are still not convinced that book value is as helpful an indicator as market value. The result of this change is that the cost of capital is 9.44%.

The second change we make is to the copper fill levels for both feeder and distribution. SBC-CA is correct that current fill levels do provide insight into an optimum fill level going forward. Nonetheless, it is not an absolute that current fill levels equal a TELRIC standard of fill. We find that the fill for copper feeder and copper distribution as proposed by JA are reasonable. The rebuttal that these fill levels are higher than current fill levels are not convincing. If we were undertaking an embedded cost study, we would certainly note current fill levels. With a TELRIC standard, we are charged with the task of identifying what a hypothetical network's copper feeder fill and copper distribution fill would be. The JA proposes roughly 10% higher fill levels than current fill levels. Indeed, SBC-CA's current fill levels do provide a validation of sorts that the JA's proposal is not extreme.

The third change we make is to specify a process in which the true-up payments are to take place. Our desire is to have the true-up take place as soon as possible without causing cash-flow problems, especially for smaller CLCs.

suggest "outboard calculations" to approximate the higher labor rates used in the SBC-CA models, which the Commission found were difficult to transport into HM 5.3. We have incorporated these suggestions as discussed herein.

E. The True-Up of Interim Rates

CALTEL, Vycera, Navigator, and Mpower all comment that because the rates in the Proposed Decision are substantially higher than the interim rates adopted in D.02-05-042 and D.02-09-052, the size of the adjustment, or true-up, resulting from SBC-CA's new permanent UNE rates will hurt the level of competition in California's local exchange telephone market and drive CLCs into bankruptcy. These parties urge the Commission to consider the effects of the true-up in limiting consumer choice by driving competitors out of the market and to take steps to mitigate these negative effects.

For example, Mpower suggests limiting the amount of any back payments owed to SBC-CA to the prior OANAD rates set in D.99-11-050, rather than the lower interim rates adopted in D.02-05-042. ORA/TURN suggest the Commission should offer CLCs the option of a phased true-up payment plan to even out the cash flow consequences of an unexpected increase in UNE rates. They also suggest that interest accrual on amounts CLCs owe to SBC-CA should cease with the effective date of a decision ordering final UNE prices. (ORA/TURN, 6/7/04, p. 9.)

We realize, given the length of time between the interim and final decision, that a true-up could place an economic hardship on some of the smaller CLC's. Accordingly, we would be favorably disposed to a multi-year repayment schedule. Further proceedings may be necessary to avoid unnecessary cash-flow problems especially for these smaller CLCs. Furthermore, we note the recent order of the Ninth Circuit Court of Appeals regarding the shared and common cost mark-up requires us to reconsider that component of UNE rates. Further proceedings on the true-up, which we intend to conduct expeditiously, will allow us to consider whether and how to implement any markup changes, as ordered by the Court, along with the true-up.

SBC-CA will need to provide each CLC with a true-up amount. [4] SBC-CA should provide this information to CLCs no later than 30 days from the effective date of this decision.

CLCs are responsible for payment of that true-up amount. [5] However, because there was an extended period that interim rates have been in effect, CLCs should work business-to-business with SBC-CA to determine if they can come to a payment solution. CLCs and SBC-CA should have 30 days to discuss payment solutions.

---

[4] We note that in some cases, the true-up amount will actually be negative. In other words, SBC-CA owes an amount to a CLC.

[5] If the true-up amount is negative, then SBC-CA is responsible for payment to a CLC.

Within 10 days after this second 30-day period, SBC-CA will file a status report of the true-up payments in this docket. Categories should include at a minimum, (a) CLCs that have paid the true-up amount in full, [6] (b) CLCs that have come to a business-to-business solution, and (c) CLCs that have an unresolved true-up payment situation.

The Commission will review the status report and take appropriate action at that time.

[6] If the true-up amount is negative, this category should indicate instances SBC-CA has paid CLCs.

98. The Commission has generally excluded short-term debt when setting the cost of capital for utilities.

99. SBC-CA's proposed capital structure uses market values of equity and debt from 1998.

100. The firms in SBC-CA's proxy group have substantially increased their debt levels in recent years.

101. Ibbotson Associates has stated that a firm's target or optimal capital structure should be used in weighting the cost of equity and debt.

102. The capital structure proposed by JA, which mixes book and market values, stabilizes the swings of a pure market value study.

IDLC/UDLC

103. SBC-CA's engineering guidelines call for greater deployment of IDLC systems when economical.

104. A CLC cannot gain access to an unbundled IDLC.

105. UDLC loops are required for circuits that cannot be provisioned over an IDLC system, such as ISDN, DS-1, and burglar alarms.

106. At present, there are no stand-alone loops provisioned over IDLC anywhere in the U.S.

Fill Factors

111. There is a wide disparity between the fill factors SBC-CA proposes in its models and those used in its TSLRIC studies for pricing flexibility.

112. HM 5.3 uses SBC-CA's temporary engineering guidelines to design cable sizes to provide 1.5 to 2 lines per living unit for residential customers.

113. SBC-CA engineering guidelines call for 2.25 lines per lot.

114. A fill factor for copper distribution plant of 51.6%.

115. In California, low density areas generally have higher fill levels, and this experience informs the LoopCAT model's higher fill levels in low density areas.

116. A fill factor for copper feeder plant of 76%.

117. HM 5.3 models 4 fibers to each DLC site for redundancy, which results in a fiber fill rate of 79.6% that includes duplicate facilities. This approach is consistent with the approach used by the FCC in its universal service cost modeling.

64. JA's three stage DCF analysis, based on more current growth rates than SBC-CA's analysis, is more reasonable than assuming all telecommunications firms will grow continuously at a faster rate than the whole economy.

65. SBC-CA's interest rate adjustment to the market risk premium is not reasonable because of updated assumptions regarding interest rate effects on equity premiums.

66. A market risk premium of 7.4%, based on Ibbotson Associates study of equity premiums from 1926 to 2001, is reasonable to use in our CAPM analysis because it is based on documented equity returns rather than disputed expectation of future returns.

67. It is more reasonable to base a risk-free rate on 30-year bonds, rather than 10-year bonds, to match the longer investment horizon in our market risk premium figure.

68. A risk free rate of 4.92% is more reasonable than SBC-CA's outdated risk free rate.

69. We should adopt SBC-CA's updated beta coefficient of .93 because it is based on recent data for the same proxy group that we use for our other cost of capital inputs.

70. When setting the cost of equity, we should give no weight to the DCF model results because DCF relies heavily on widely disparate growth forecasts for telecommunications firms.

71. It is reasonable to adopt an 11.78% cost of equity based on the conservatively higher CAPM results.

72. It is reasonable to determine a cost of capital by weighing the targeted capital structure in action to book and market values.

73. It is reasonable to assume that capital markets have already figured the relative risk of UNEs into the equity returns they require for SBC's stock.

74. SBC-CA's UNE business is subject to regulatory risk regarding the accuracy of UNE prices and competitive risk.

75. SBC-CA's cost of capital should equate to, but not be greater than, the cost of capital for SBC as a whole.

76. The Commissions' cost of capital analysis should incorporate long-term debt costs that match UNE asset lives, and are less volatile than short-term debt costs.

77. It is reasonable to assume a long-term debt cost of 6.34% for our analysis.

78. A capital structure based on a mix of market values and book values is appropriate for TELRIC pricing.

79. It is reasonable to base a capital structure on a firm's target capital structure, which includes a mix of market and book values.

80. The Commission should use a capital structure of 57% equity and4 3% debt.

IDLC/UDLC

81. UDLC is the forward-looking technology choice for network design.

82. The Commission should assume a mix of 5% IDLC and 95% UDLC in its model runs because UDLC is the forward-looking technology that permits the unbundling of loops.

DLC Costs

83. It is reasonable to incorporate DLC installation costs above and beyond those listed in the Alcatel contract in our TELRIC model runs.

84. SBC-CA could not reasonably explain how LoopCAT's DLC installation factor was derived.

Fill Factors

87. Fill factors derived purely from current network operations are not automatically forward-looking, but SBC-CA's experience in operating under incentive regulation has provided strong incentives to deploy spare capacity efficiently.

88. Fill factors should reflect accurate projections of investment to accommodate growth and a reasonable estimate of demand.

89. A fill factor for copper distribution of 51.6%% provides an adequate level of spare capacity to accommodate a reasonable projection of future demand, and is therefore, reasonable.

90. The fact that SBC-CA's fill factors may remain constant over time suggests that these fill levels are optimal.

91. SBC-CA's distribution fill factor is a reasonable proxy for forward-looking utilization.

92. It is reasonable to use a 76% copper feeder fill factor.

93. A 79.6% fiber feeder fill rate is reasonable because it is similar to the approach used by the FCC in its modeling and it provides full redundancy and spare for growth.

O R D E R

IT IS ORDERED that:

1. The recurring prices for unbundled network elements (UNEs) offered by Pacific Bell Telephone Company d / b / a SBC California (SBC-CA) that are set forth in Appendices A and C to this decision satisfy the requirements of Sections 251(c)(2), 251(c)(3), and 252(d)(1) of the Telecommunications Act of 1996 and are hereby adopted.

2. Pursuant to Commission Resolution ALJ-181 (adopted October 5, 2000), SBC-CA shall prepare amendments to all interconnection agreements between itself and other carriers. Such amendments shall substitute the recurring UNE prices set forth in Appendices A and C for the UNE prices set forth in such interconnection agreements. Such amendments shall be filed with the Commission's Telecommunications Division, pursuant to the advice letter process set forth in Rules 6.1 and 6.2 of Resolution ALJ-181, within 30 days after the effective date of this order. The amendments do not require a signature of the carriers involved as long as the amendments are limited to substituting the UNE rates adopted in today's order. Unless protested, such amendments shall become effective 30 days after filing. The flat per port switching rates adopted in this order shall not apply in the context of reciprocal compensation between carriers. The rates shown in Appendix C shall be used for reciprocal compensation purposes.

3. The UNE prices adopted in this order shall be effective on the date this order is effective. SBC-CA shall make all billing adjustments necessary to ensure that this effective date is accurately reflected in bills applicable to these UNEs. SBC-CA shall have 60 days from the date of this order to complete the billing program changes necessary to reflect in bills the recurring prices for UNEs

adopted in this order. Upon completion of said billing program changes, SBC-CA shall notify the Director of the Telecommunications Division in writing that all of the necessary billing program changes have been completed.

4. Within 30 days of the effective date of this order, SBC-CA shall calculate and provide to each CLC any billing adjustments owed to or by interconnecting carriers based on the modification of interim rates set in Decision 02-05-042 and Decision 02-09-052 to the rates in this order. Second, CLCs are to either pay the true-up amount or negotiate with SBC-CA within 60 days of the effective date of this order. Third, SBC-CA shall file a status report in this docket within 70 days of the effective date of this decision. Fourth, the ALJ shall issue a Ruling to review the status and to set a schedule for review of unresolved true-up payments and any shared and common cost markup revisions.

5. The annual nomination procedure set forth in Ordering Paragraph 11 of Decision (D.) 99-11-050 is suspended until 2007 or until the FCC revises its methodology for calculating TELRIC, whichever comes first. SBC-CA or carriers with which SBC-CA has interconnection agreements, may file nominations of UNEs for review, as described in D.99-11-050, between February 1 and March 1, 2007.

6. Official notice is taken of the DS-1 and DS-3 loop cost calculations proposed by AT&T Communications of California and MCI-WorldCom Inc. in the Verizon UNE phase of Rulemaking 93-04-003 / Investigation 93-04-002.

7. Application (A.) 01-02-024, A.02-02-035, A.02-02-031, A.02-02-032, A.02-02-034, and A.02-03-003 shall remain open pending resolution of true-up payment issues.

This order is effective today.

Dated _____